

Name: \_\_\_\_\_

EXTRA CREDIT (10 pts)

The cotransduction frequencies of 6 *E. coli* markers are listed in the table below. From this data, deduce the order of these markers. Present your answer in such a way that I can follow your reasoning.

Selected Donor Marker	Inheritance of unselected donor marker (no. inheriting marker/total colonies scored).				
	dsdA	purC	aroC	ptsI	supN
supN			20/212	183/212	
ptsI	15/128	10/228	0/304		88/108
purC				54/967	33/976
dsdA			50/240	22/240	
guaB		72/227	0/227	0/277	

Figure 8.14

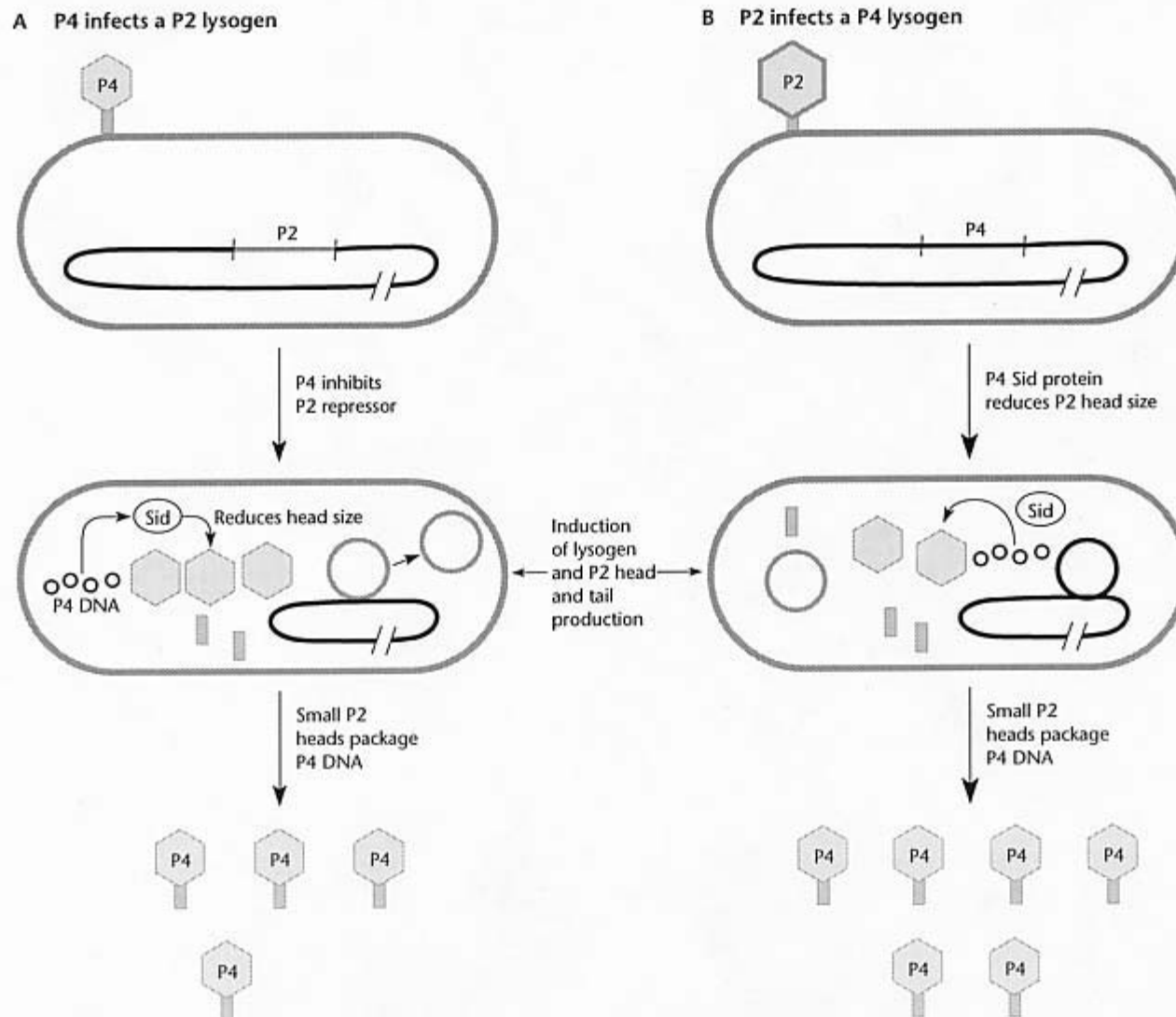


Figure 8.15

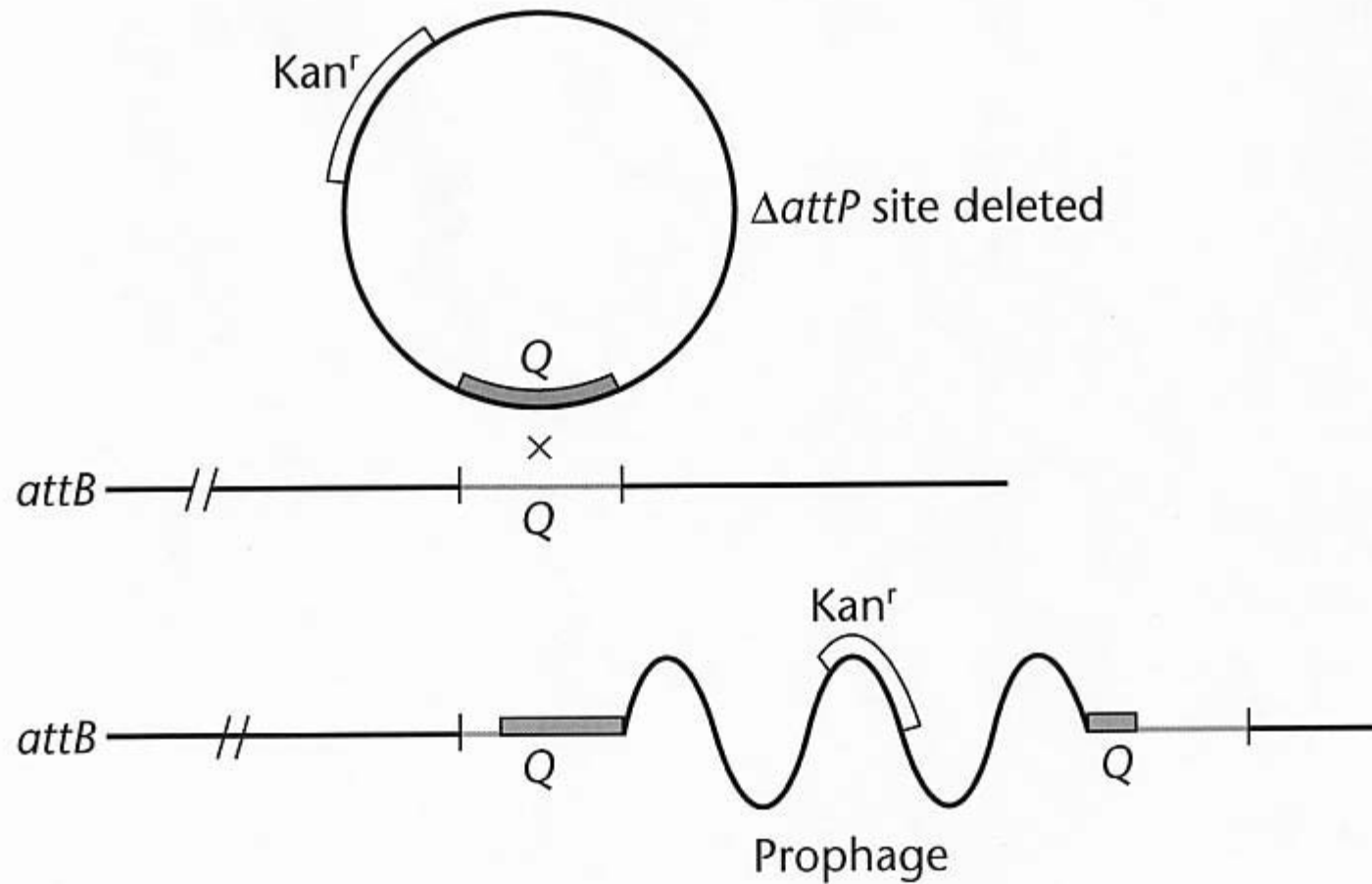
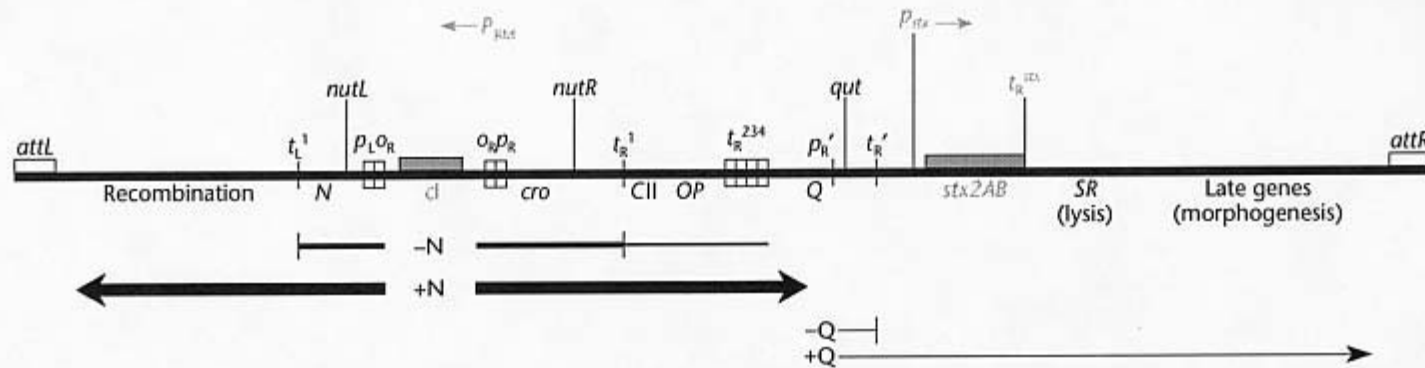


Figure 8.16



# Some $\lambda$ mutations affecting lysogeny

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Phage	<u>E. coli</u> <sup>Host</sup>	<u>E. coli</u> ( $\lambda$ )
$\lambda^+$	turbid	no plaques
$\lambda cI$	clear	"
$\lambda cI^{ts}$	30° turbid 42° clear	" "
$\lambda cI^{ind}$	turbid	"
$\lambda vir$	clear	clear
$\lambda cII$	clear	no plaques
$\lambda cIII$	clear	"

Figure 8.17

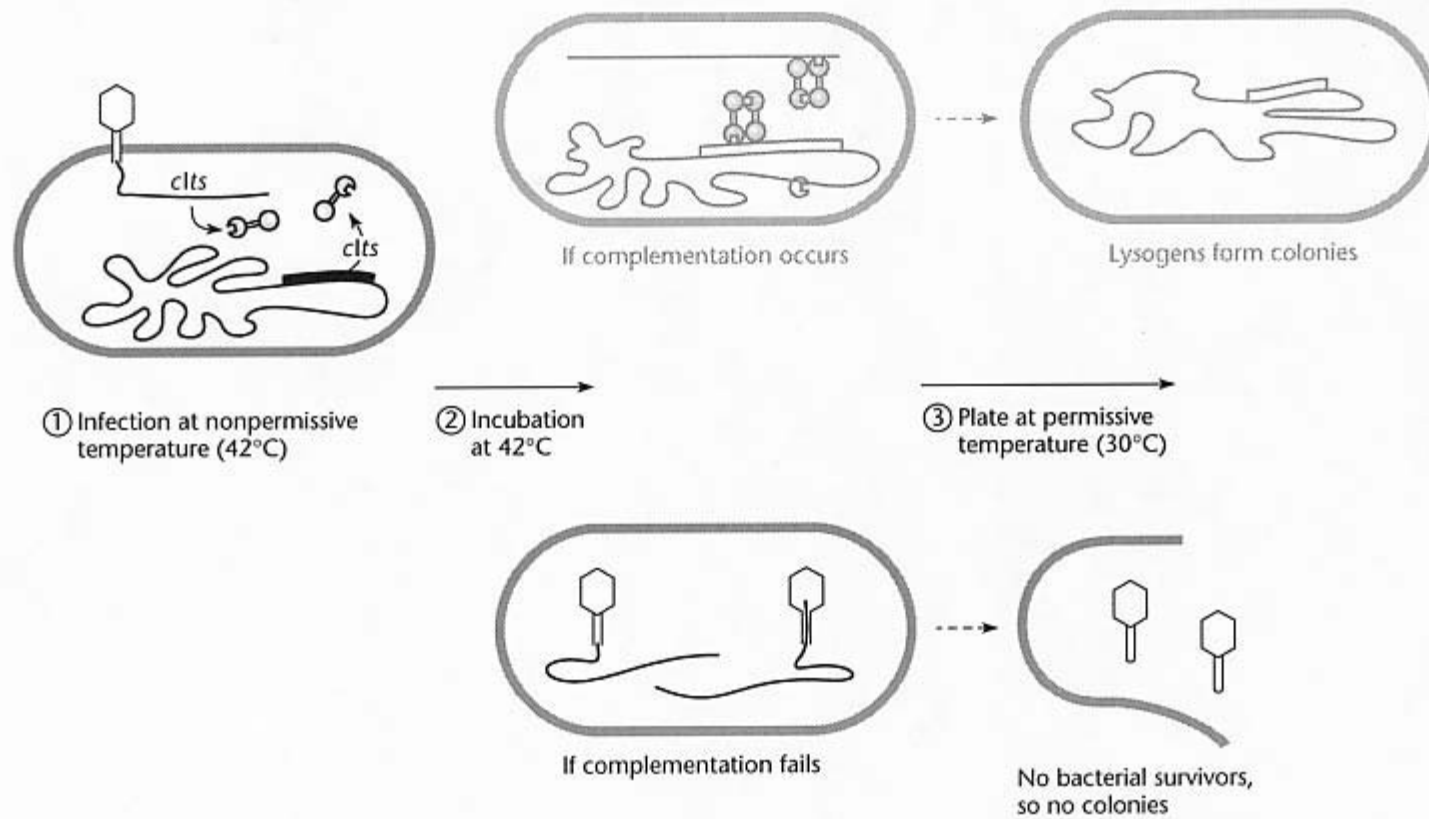




Figure 8.18

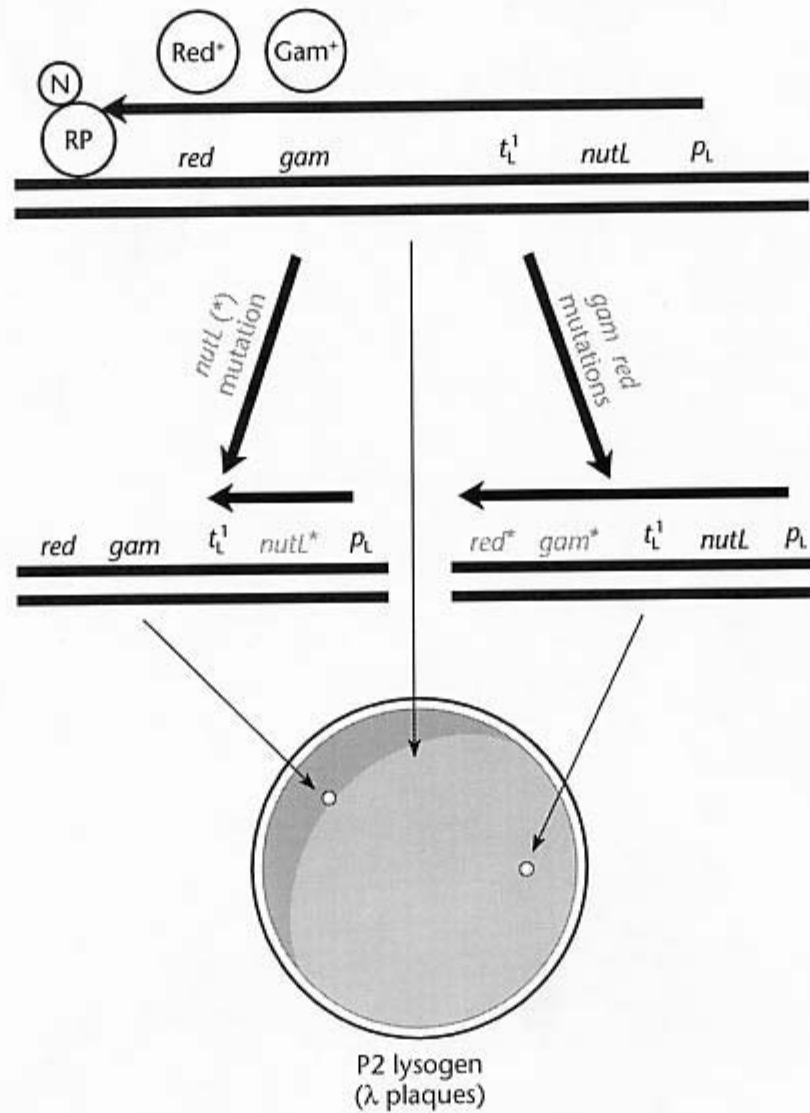


Figure 8.19

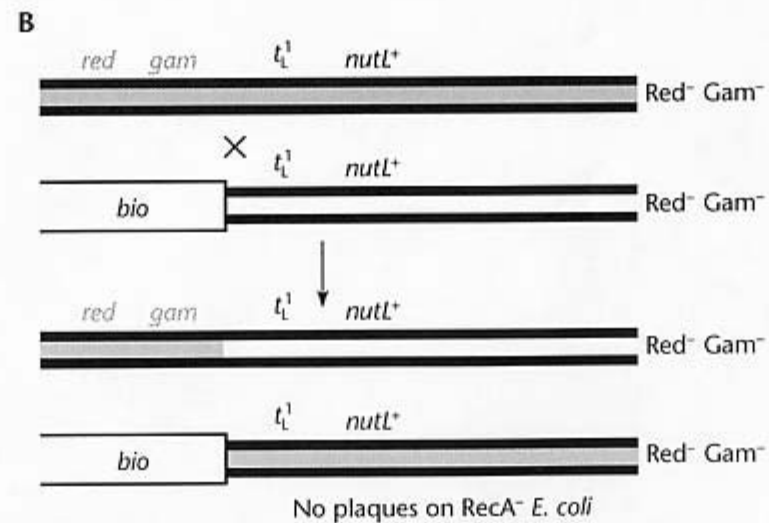
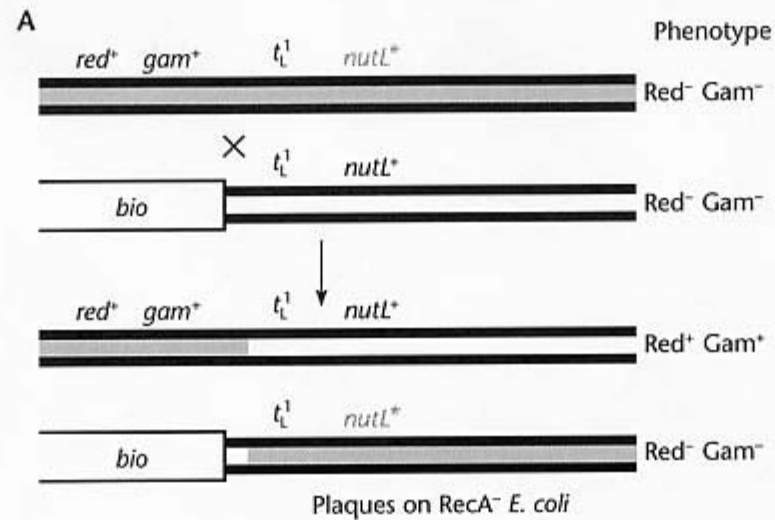
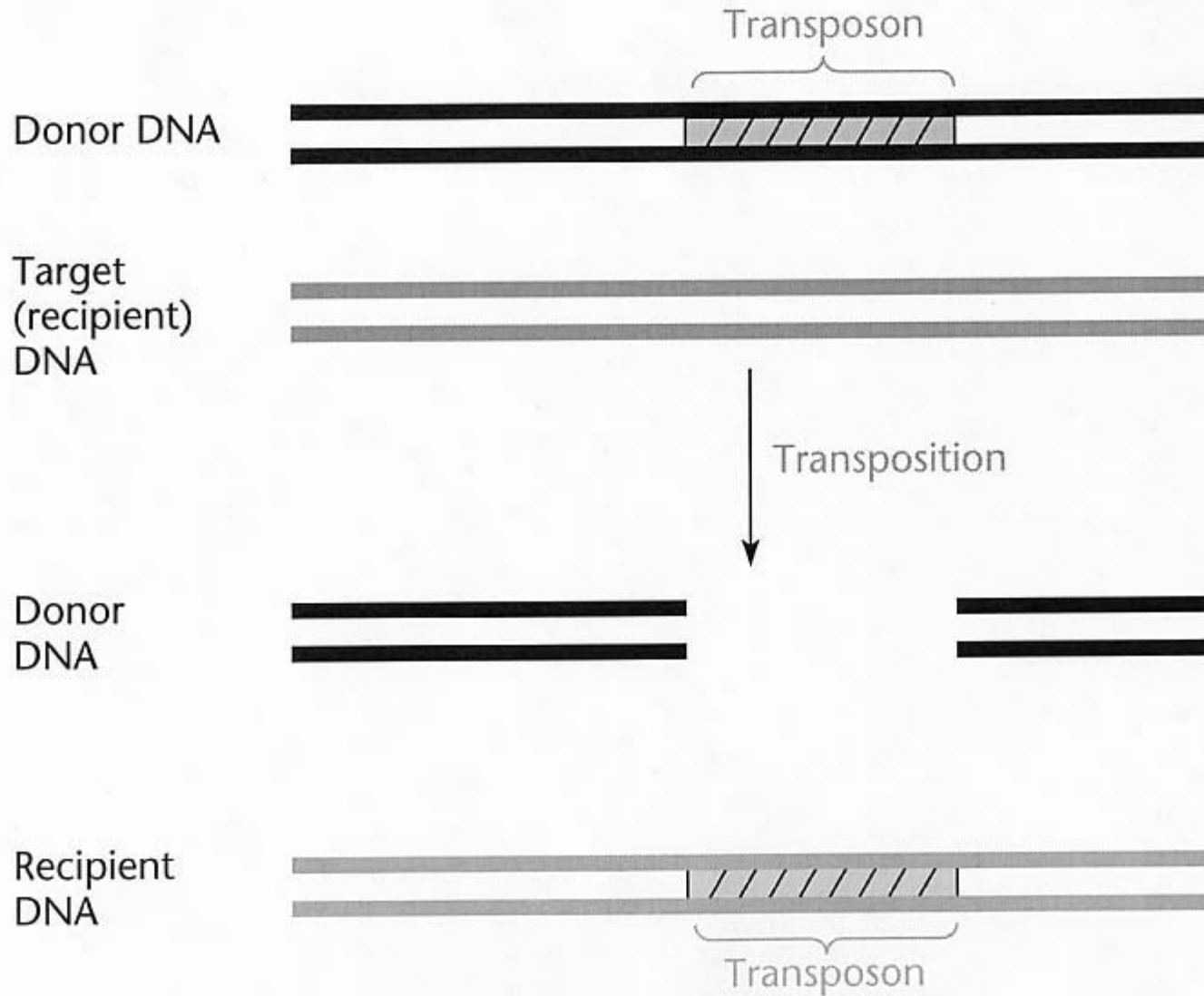




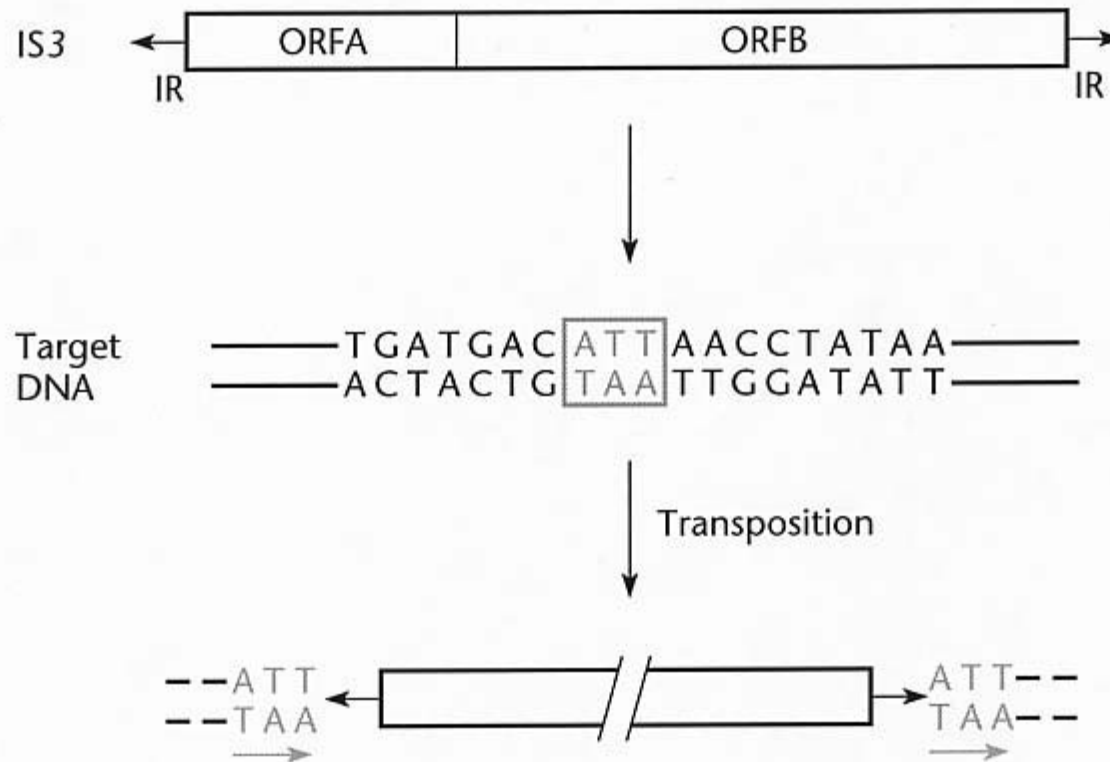


Figure 9.1





**Figure 9.2**



IR 40-bp inverted repeat

ORFAB Transposase

ATT  
TAA

3-bp target site

Figure 9.3

